

**REMARKS**

After entry of the above amendments, the claims pending in the subject application are 1 and 3-22. Reconsideration of claims 1 and 3-22 is respectfully requested, based upon the amendments and remarks herein.

Applicants have amended claims 10 and 22 in response to the Claim Objections noted on page 2 of the Office Action. In claim 10, the article “the” has been deleted in favor of “an”, corresponding to the first recitation of the element “exterior”. In claim 22, proper Markush language has been inserted. Also in claim 22, “on” has been replace with “one”, consistent with a similar recitation in independent claims 1 and 14.

**35 USC 112 Rejections**

Claim 9 has been rejected under 35 USC 112 first paragraph for reasons stated at page 2 of the Office Action. Applicants have clarified claim 9 by modifying the phrase “at least one particulate filter” to “at least a first particulate filter”. It is noted that the Specification at paragraph 51 discloses an embodiment of the invention having a removable filter within the casing, and a further embodiment in which a “second removable filter” may also be placed within the casing. Applicants however, traverse the statement that there is not support in the specification for more than 2 filters. Although preferred embodiments of the invention are discussed in the Specification, it is noted at paragraph 61 that certain changes may be made in the above construction without departing from the scope of the invention, and that all matters contained in the foregoing description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. The use of multiple filters at the positions noted, or at additional positions within the casing, is not outside the scope of the present invention. Further, originally filed claim 9, which is part of the Specification, recited “a” particulate filter. The Court of Appeals for the Federal Circuit has repeatedly emphasized that an indefinite article “a” or “an” in patent parlance carries the meaning of “one or more” in open-ended claims containing the transitional phrase “comprising”. *KCJ Corp. v. Kinetic Concepts, Inc.* 223 F.3d 1351, 55 USPQ2d 1835 (Fed. Cir. 2000). The use of more than 2 filters is not outside the scope of the present invention.

Claims 7 and 19 are rejected under 35 USC 112 first paragraph, and claims 1, 3-18, and 22 are rejected under 35 USC 112 second paragraph, for reasons stated at pages 2-3 of the Office Action. It is alleged that there is no known “compound” that contains titanium dioxide, and either copper or silver or both. Applicants respectfully traverse.

The word “compound” has various meanings. In a strict sense, a compound is a substance composed of atoms or ions of two or more elements in chemical combination. (Hawley’s Condensed Chemical Dictionary, 12<sup>th</sup> Ed. 1993.) However, the term compound is often used for combinations of ingredients that together comprise a formulation or composition. Hawley’s second definition reflects this common usage: “Loosely, a product formula of various types, e.g. pharmaceuticals (a vegetable compound), rubber (a fast-curing compound), etc.” In the Random House Webster’s Unabridged Dictionary, 2<sup>nd</sup> Edition, the first definition for compound is “composed of two or more parts, elements, or ingredients: *Soap is a compound substance.*” Definition 10 defines compound as “something formed by compounding or combining parts, elements, etc.” The traditional Chemical definition follows as number 11. Copies of these definitions are attached.

One of skill in the art of air treatment apparatus, reading in the Specification (e.g. paragraph 56) that “the target is preferably comprised of a combination of titanium dioxide, copper and silver formed in a hydration compound of silica gel”, followed by ranges of proportions of various components by weight in the “target compound”, would fully understand that the word “compound” was being used in the general sense of a mixture of elements or ingredients, (specifically, a mixture of chemical elements and chemical compounds) rather than a pure substance whose chemical composition was of constant formula.

Applicants have amended claims 1, 3, 7, 14, 19 and 22, to clarify in those claims and in the claims depending therefrom, the composition of which the target and secondary target may be comprised, in accordance with the disclosure of the Specification, e.g. paragraphs 12, 13, 56 and 59.

It is respectfully submitted that the clarifying amendments and remarks discussed above, overcome the 35 USC 112 rejections of the noted claims.

35 USC 103(a) Rejections

Claims 1, 4, 6, 8-10, 14-16 and 22 are rejected under 35 USC 103(a) over US 2003/0019738 A1 to Reisfeld et al., for reasons set forth on pages 4-7 of the Office Action.

It is noted that although Reisfeld et al. was cited in the previous office action, that action indicated that claims 2, 7 and 19-21 were allowable over the reference. Applicant therefore amended claims 1 and 14, and added new claim 22 to include the subject matter of claim 2, such that all pending claims (those indicated as allowable, those amended and those depending therefrom), included the allowable subject matter.

The indication of allowability has been withdrawn in the present Office Action and a new rejection issued based on Reisfeld et al. Applicants submit that Reisfeld et al. is not available as a reference against the present application, as discussed in detail below.

Accompanying this Response is a Declaration pursuant to 37 CFR 1.131 to establish completion of the invention of the apparatus and methods claimed in the present application in the United States on a date prior to July 30, 2001, which is the effective date of U.S. Patent Application Publication No. 2003/0019738A1 to Reisfeld et al., cited in the Office Action dated November 17, 2004. The person making this declaration is one of the inventors, Ronald G. Fink.

Attached to the Declaration as Exhibit A is a copy of a series of drawings of a high volume, wall mountable air sanitation apparatus which shows a casing with an interior, a first side and a second side, means for moving air located at the first side of the casing, namely a 550 cfm fan; an elongated high energy UV light source, namely a UV lamp; an elongated target comprising titanium disposed about the UV lamp bulb shown in the form of a mesh; the air

moving from the first side of the casing across the target, whereby UV striking the air and the target in the presence of water will generate hydro-peroxides, super-oxide ions and/or hydroxyl radicals.

The Front View of the apparatus shows a secondary target comprising titanium spaced a distance from the mesh target such that air can flow in the volume between the mesh target and the secondary target, and UV light that passes through the mesh target can strike the secondary target to generate additional hydro-peroxides, super-oxide ions and/or hydroxyl radicals.

The Top View of Exhibit A corresponds to Fig. 8A of the present application, and its corresponding End View corresponds to Fig. 8B. The Front View of Exhibit A corresponds to Fig. 9 of the present application. The Bottom View of Exhibit A corresponds to Fig. 10 of the present application. The sheet of drawings presented as Exhibit A contains a date of printing (which has been redacted) that is a date earlier than the effective filing date of the reference, that is, earlier than July 30, 2001. The apparatus was installed at a test facility, and testing of the apparatus and the ozonation/UV method commenced prior to July 30, 2001.

The declaration demonstrates that the claimed apparatus and methods were conceived and reduced to practice in the United States of America before July 30, 2001, which is the effective filing date of Reisfeld et al., U.S. Patent Application Publication No. 2003/0019738A1.

Applicants therefore submit that Reisfeld et al. is not available as a reference against the present application, and request that the 35 USC 103(a) rejection over Reisfeld et al. be withdrawn. Applicants traverse the allegations set forth in the rejection over Reisfeld et al. in the present Office Action, and do not waive the right to reply to the same if such rejection is maintained.

Claims 3 and 17 are rejected under 35 USC 103(a) over US 2003/0019738 A1 to Reisfeld el al. in view of US 6,589,489 B2 to Morrow et al., for reasons set forth on page 7 of the Office Action.

In view of the submission of the Declaration antedating the Reisfeld et al. primary reference, it is submitted that Reisfeld et al. is not available as a reference against the present application, and that the rejection of claims 3 and 17 under 35 USC 103(a) over Reisfeld el al. in view of Morrow et al. (US 6,589,489 B2) is rendered moot.

Applicants therefore request that the 35 USC 103(a) rejection of claims 3 and 17 over Reisfeld et al. in view of Morrow et al. (US 6,589,489 B2) be withdrawn. Applicants traverse the allegations set forth in the rejection over Reisfeld et al. in view of Morrow et al. (US 6,589,489 B2) in the present Office Action, and do not waive the right to reply to the same if such rejection is maintained.

Claims 5, 11-13 and 18 are rejected under 35 USC 103(a) over US 2003/0019738 A1 to Reisfeld el al. in view of US 5,656,242 to Morrow et al., for reasons set forth on pages 7-8 of the Office Action.

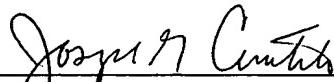
In view of the submission of the Declaration antedating the Reisfeld et al. primary reference, it is submitted that Reisfeld et al. is not available as a reference against the present application, and that the rejection of claims 5, 11-13 and 18 under 35 USC 103(a) over Reisfeld el al. in view of Morrow et al. (US 5,656,242) is rendered moot.

Applicants therefore request that the 35 USC 103(a) rejection of claims 5, 11-13 and 18 over Reisfeld et al. in view of Morrow et al. (US 5,656,242) be withdrawn. Applicants traverse the allegations set forth in the rejection over Reisfeld et al. in view of Morrow et al. (US 5,656,242) in the present Office Action, and do not waive the right to reply to the same if such rejection is maintained.

It is acknowledged that the objection to the drawings, the specification and claims, and the 35 USC 112 second paragraph rejections presented in the previous office action have been withdrawn.

In view of the foregoing amendments and remarks, favorable action on the merits, including reconsideration of the application, withdrawal of the objection to the claims, withdrawal of the 35 U.S.C. §§112 and 103(a) rejections, and the allowance of claims 1 and 3-22, respectfully is requested. Should the Examiner have any questions about the above amendments or remarks, the undersigned attorney would welcome a telephone call.

Respectfully submitted,

  
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